【CLAIMS】

【Claim 1】

A light emitting device package, comprising:

a metal base;

an electrical circuit layer provided at an upper side of the metal base for providing a conductive path;

an insulating layer sandwiched between the meta base and the electrical circuit layer;

a light emitting device mounted on the top surface of the metal base in an open space from which the insulating layer is removed;

an electrode layer provided at an upper side of the electrical circuit layer; and

a connection portion for electrically connecting the electrode layer and the light emitting device.

【Claim 2】

The light emitting device package of claim 1, further comprising a molding portion for molding the inside of the open space.

【Claim 3】

The light emitting device package of claim 1, further comprising a heat sink formed on the bottom surface of the metal base.

【Claim 4】

The light emitting device package of claim 1, further comprising a heat sink combined to the metal base by a screw.

【Claim 5】

The light emitting device package of claim 1, further comprising a heat sink that comes in contact with one surface of the metal base with a heat transfer material embedded therein.

【Claim 6】

The light emitting device package of claim 1, wherein the open space is processed by milling.

【Claim 7】

The light emitting device package of claim 1, wherein the open space is processed by etching.

【Claim 8】

The light emitting device package of claim 1, wherein the light emitting device is one or more LED chips selected from the group consisting of a red LED chip, a green LED chip, a blue LED chip, a yellow LED chip and an orange LED chip.

【Claim 9】

The light emitting device package of claim 1, wherein the light emitting device comes in contact with the metal base.

【Claim 10】

The light emitting device package of claim 1, wherein the light emitting device consists of one or more SiOB chips.

【Claim 11】

The light emitting device package of claim 1, wherein the light emitting device is combined to the metal base by a thermal conductive hardening agent.

【Claim 12】

The light emitting device package of claim 1, wherein the light emitting device is provided in a plurality of modules on one metal base, and the electrical circuit layer serially connects the respective modules.

【Claim 13】

The light emitting device package of claim 1, wherein the light emitting device is provided in a plurality of modules on one metal base, and the modules are arranged in either straight line, round or polygon.

【Claim 14】

The light emitting device package of claim 1, wherein a plating layer is provided on the top surface of the electrode layer.

【Claim 15】

The light emitting device package of claim 1, wherein the electrode layer is plated with gold.

【Claim 16】

The light emitting device package of claim 1, wherein the

electrode layer is plated at a thickness of 0.3mm or greater.

【Claim 17】

The light emitting device package of claim 1, wherein the electrical circuit layer and the electrode layer are formed at an overall thickness of the two layers within 200mm.

【Claim 18】

The light emitting device package of claim 1, wherein the electrode layer is formed by an electroplating method.

【Claim 19】

The light emitting device package of claim 1, wherein a removal region removed to a predetermined depth is provided on the metal base, and the light emitting device is placed in the removal region.

【Claim 20】

The light emitting device package of claim 1, wherein the region of the metal base where the light emitting device is placed has a smaller thickness than the other regions.

【Claim 21】

The light emitting device package of claim 19, wherein the sides of the removal region are inclined at a predetermined angle.

【Claim 22】

The light emitting device package of claim 19, wherein the

inner surface of the removal region are coated or provided with a reflecting material.

【Claim 23】

The light emitting device package of claim 19, wherein the removal region is formed in a cylindrical shape.

【Claim 24】

The light emitting device package of claim 19, wherein the removal region is processed by milling.

【Claim 25】

The light emitting device package of claim 1, further comprising:

a silk screen layer formed on the top surface of the electrode layer; and

a lens portion attached to the silk screen layer.

【Claim 26】

The light emitting device package of claim 25, wherein the light emitting device is molded by resin forming the lens portion.

【Claim 27】

The light emitting device package of claim 25, wherein the lens portion is molded.

【Claim 28】

A light emitting device package, comprising:

a metal base;

an electrical circuit layer provided at an upper side of the metal base for providing a conductive path;

a light emitting device mounted in a second region having a smaller thickness than a first region on the metal base;

an insulating layer sandwiched between the meta base and the electrical circuit layer;

an electrode layer provided at an upper side of the electric circuit layer; and

a connection portion for electrically connecting the electrode layer and the light emitting device..

【Claim 29】

The light emitting device package of claim 28, wherein the inside of the second region is molded by resin.

【Claim 30】

The light emitting device package of claim 28, wherein the second region is inclined at a predetermined angle.

【Claim 31】

The light emitting device package of claim 28, wherein the inner surface of the second region is coated by a gloss finish.

【Claim 32】

The light emitting device package of claim 28, wherein a reflecting material is provided on the inner surface of the second region.

【Claim 33】

The light emitting device package of claim 28, wherein the second region is formed in a cylindrical shape.

【Claim 34】

The light emitting device package of claim 28, wherein the second region is formed by processing the original metal base.

【Claim 35】

The light emitting device package of claim 28, wherein the second region is processed by milling.

【Claim 36】

The light emitting device package of claim 28, wherein the inside of the second region is filled by the molding portion.

【Claim 37】

The light emitting device package of claim 28, wherein the top surface of the molding portion is flat.

【Claim 38】

The light emitting device package of claim 28, wherein the insulating layer corresponding to the region where the light emitting device is placed is opened and forms an open space.

【Claim 39】

The light emitting device package of claim 38, wherein the sides of the open space are inclined at a predetermined angle.